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HTML5 ENTITES & SEMANTIC ELEMENTS & VALIDATION

Introduction to Internet Programming
ITGS 226 -- S 2021

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HTML Entities

- Character entities are used to display reserved characters in HTML.
- **&entity_name;** OR **&#entity_number;**
- Entity names are **case sensitive**.
- To display a less than sign (<), write: **<** or **<**
- A commonly used entity in HTML is the non-breaking space: ** **

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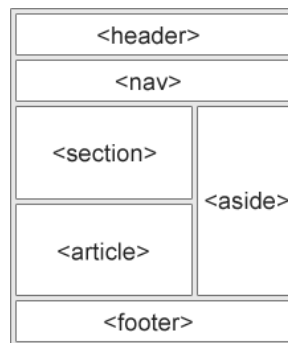
Some Useful HTML Character Entities

Result	Description	Entity Name	Entity Number
	non-breaking space	&nbsp;	&#160;
<	less than	&lt;	&#60;
>	greater than	&gt;	&#62;
&	ampersand	&amp;	&#38;
"	double quotation mark	&quot;	&#34;
'	single quotation mark (apostrophe)	&apos;	&#39;
©	copyright	&copy;	&#169;

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SEMANTIC ELEMENTS

- `<header>`
- `<nav>`
- `<section>`
- `<article>`
- `<aside>`
- `<footer>`



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SEMANTIC ELEMENT: <HEADER>

- The <header> element represents a container for introductory content or a set of navigational links.
- A <header> element typically contains:
 - one or more heading elements (<h1> - <h6>)
 - logo or icon
 - Authorship information
- It is a Block element that may contain block or inline or text content.
- No <footer> or another <header> element as ancestors or descendants

```
<header>
  <h1>Tutorial Republic</h1>
  <nav>
    <p><a href="#">Home</a> |
      <a href="#">About</a> |
      <a href="#">Contact</a> </p>
  </nav>
</header>
```

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SEMANTIC ELEMEN: <NAV>

- The <nav> element defines a section of navigation links (i.e. links to other pages or to parts within the page itself) in a document.
- It is a Block element that may contain block or inline or text content.

```
<nav>
  <ul>
    <li><a href="#">Home</a></li>
    <li><a href="#">About</a></li>
    <li><a href="#">Contact</a></li>
  </ul>
</nav>
```

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SEMANTIC ELEMENT: <SECTION>

- The <section> element defines a section in a document.
- Examples of where a <section> element can be used:
 - Chapters
 - Introduction
 - News items
 - Contact information
- A web page could normally be split into sections for introduction, content, and contact information.
- It is a Block element that may contain block or inline or text content.

```
<section>
  <h1>Welcome to Our Website</h1>
  <p>Welcome and thank you. </p>
</section>
```

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SEMANTIC ELEMENT: <ARTICLE>

- The <article> element specifies independent, self-contained content.
- An article should make sense on its own, and it should be possible to distribute it independently from the rest of the web site.
- Examples of where the <article> element can be used:
 - Forum posts
 - Blog posts
 - User comments
 - Newspaper articles
- It is a Block element that may contain block or inline or text content.

```
<article>
  <h1>Introduction to HTML</h1>
  <p>HTML is a markup language.</p>
</article>
```

[8]

SEMANTIC ELEMENT: **<ASIDE>**

- The <aside> element defines some content aside from the content it is placed in (like a sidebar).
- The <aside> content should be indirectly related to the surrounding content.
- It is a Block element that may contain block or inline or text content.

```
<aside>
  <h1>Apollo 13 Facts</h1>
  <p>Apollo 13 was the seventh manned mission in
  the American Apollo space program and the third
  intended to land on the Moon.</p>
</aside>
```

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SEMANTIC ELEMENT: **<FOOTER>**

- The <footer> element defines a footer for a document or section.
- A <footer> element typically contains:
 - copyright information
 - contact information
 - back to top links
 - related documents
- You can have several <footer> elements in one document.
- It is a Block element that may contain block or inline or text content, but no <footer> or <header>.

```
<footer>
  <nav>
    <p><a href="#">Terms of Use</a> |
    <a href="#">Privacy Policy</a>
    </p>
  </nav>
  <p>Copyright © 2014 Tutorial Republic</p>
</footer>
```

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NON-SEMANTIC ELEMENTS

- `<div>`
- ``

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NON-SEMANTIC ELEMENT: **<DIV>**

- The `<div>` (short for *division*) tag is generic container for flow content, which has no default rendering or meaning.
- The `<div>` tag is extensively used to define the structural sections of a document and to layout a web page using CSS.
- It is a Block element that may contain block or inline or text content.

```
<div class="welcome-box">  
  <h1>Welcome</h1>  
  <p>Hi, welcome to our website.</p>  
</div>
```

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NON-SEMANTIC ELEMENT: ****

- The `` tag is generic inline container for phrasing content, which has no default rendering or meaning.
- The `` tag is extensively used to define the structural sections of a document and to layout a web page using CSS.
- It is a Inline element that may contain inline or text content.

```
<p>Here is some
    <span style="color:red;"> different </span>
text.</p>
```

```
<p>Read the
    <span class="important"> Notes </span>
carefully.</p>
```

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NON-SEMANTIC ELEMENT: ****

- The `` tag is generic inline container for phrasing content, which has no default rendering or meaning.
- The `` tag is extensively used to define the structural sections of a document and to layout a web page using CSS.
- It is a Inline element that may contain inline or text content.

```
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    <span style="color:red;"> different </span>
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```
<p>Read the
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```

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HTML5 VALIDATION

- The World Wide Web Consortium provide a simple online tool (<https://validator.w3.org/>) that automatically check your HTML code and point out any problems/errors your code might have, such as missing closing tags or missing quotes around attributes.

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THE END

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